Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B1 Cell Biology

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Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Mark Schemes

Q1.

(a) (i)

if two nuclei drawn then maximum two marks

1

6 chromosomes

1

same 3 homologous pairs

1

nuclear membrane drawn

1

(ii) 3 chromosomes

1

1 from each homologous pair

1

(b) (i)

parent line must be separate

heterozygous parents Tt × Tt

*maximum of **2** marks if parental genotype is wrong*

gametes correct T t T t

1

genotypes TT Tt Tt tt

1

(ii) correct analysis of chance i.e. 1 in 4
or 25%

1

(iii) 50% **or** 1 in 2

1

[10]

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Q2.

(a) (i) change in weight was due to changes in potato
or osmosis **or** not due to outside liquid

ignore 'to make fair test'

1

(ii) beaker 2 = 15.1(%) gain

allow 15%

1

beaker 4 = 21.8(5) loss

***not** 21.7*
allow –22%
if no minus or no 'loss' check graph

1

beaker 5 = 29.8(%) loss

allow –30%

1

(b) (i) both axes correct values
and scales > ½ of each axis

ignore lack of minus signs on vertical axis

1

points correct
< ± ½ square

allow answers in (a)(ii)

1

line correct

allow curve of best fit which can miss 10, 15
***or** straight lines between points*
*do **not** allow one straight line or sketched line*
bar graph zero marks

1

(ii) point where line crosses axis (eg 15-16% sucrose)

allow point from candidate's graph (± 0.5%)

1

(iii) any **two** from:

looking for understanding that water in equilibrium

no change in mass

not **net** movement of water
or water entry and exit are equal

because sucrose solution same
concentration as cell sap **or** sucrose has
same water potential as cell contents

allow because the concentrations are the same (inside and out)

2

[10]

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